

The Priority Fields and the Prevention and Control of Water Pollution in China

Addressing at the Sino-U.S. seminar on water resources
19-22 April 1999, U.S.A

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Since the adoption of the reform and opening up policy in China, Chinese national economy has gained rapid development and people's living standard enhanced quickly. However, with the economic development, the environment is faced with much pressure as well, especially the issue of water pollution, which has drawn great attention of the Chinese Government. And now we are taking active measures to curb the trend of environment deterioration.

1. Major Work of Water Pollution Prevention and Control in China

The work of water pollution prevention and control in China is focused on the prevention and control of the "three rivers and three lakes ", which closely connected the prevention and control of water pollution with the improvement of water environment quality. On the basis of compliance with emission standards, we implemented total amount control system on waste discharge. And through the pollution treatment in key basins, we learned and drew experience and lessons from it and use it to the whole country, so as to promote general improvement of water environment quality all over the country.

1). Establishment of preliminary legal systems on water pollution prevention and control

Since 1984, China has issued over ten laws and regulations on the prevention and control of water pollution, such as the Law on Water Pollution Prevention and Control, the Detailed Regulations on Implementation of Water Pollution Prevention and Control, Decisions on Reinforcement of the Prevention and Control of Water Pollution, Provisional Rules on Water Pollution Prevention and Control in Huai River Basin, and tens of standards on water environmental protection, such as Environmental Quality Standards on Surface Water, Comprehensive Emission Standards on Waste Water. The preliminary legal system on water pollution prevention and control has been established.

2). Forming a series of management systems on water pollution prevention and control

Since the water pollution prevention and control was initiated in 1994, we have accumulated much working experiences on prevention and control of basin water pollution gradually, such as with regard to the key basins, we initiated the work from

formulating the prevention and control planning on basin water pollution, identifying the goals of prevention and control, and working out regulations at basin level. And at the same time, we strengthened the enforcement of the laws and set up the responsibility system of local governments on environmental quality, and also implemented the system of total amount control on major pollutants and reinforced the readjustment of industrial structure. All the above measures have promoted the work of water pollution prevention and control in China.

3). Some achievements have been made on sewage treatment

In order to resolve the pollution of industrial waste water, the Chinese government adopted mandatory measures to shut up tens of thousands of small scale enterprises of 15 kinds which has consumed much resources and energy, caused serious pollution and more difficult to be treated. At the same time, restrained orders have been given to other enterprises to urge them to reach the emission standards by 2000. At present, the percentage of municipal sewage treatment plants is being enhanced.

4). Water pollution prevention and treatment in key basins have made great progress

In 1995, the State Council designated Huai River, Liao River, Hai River, Tai Lake, Cao Lake and Dian Chi Lake as key basins for water pollution prevention and control during the ninth Five-Year Plan period, namely from 1996 to 2000. At present, the planning for prevention and control of water pollution in these river basins have been completed, among which four plans about Huai River, Tai Lake, Dian Chi Lake and Cao Lake have been approved by the State Council. And now these plans are in the course of implementation. Two basin plans about Liao River and Hai River are now subject to be approved. According to the requirement of the plans, main industrial pollution sources in the basins of Huai River and Tai Lake have basically reached the emission standards. The discharge volume of main pollutants has been reduced by 40%, and the water pollution has been undercontrolled.

2. The present state of water environment and main existing issues

Although the prevention and control of water pollution in China has made big progress, the development is rather imbalanced. The present situation on water environment in general is still serious. The worsening trend of the 7 major water systems, parts of the lakes and the off-shore maritime spaces has not been effectively curbed. Water pollution further aggravated the situation of water shortage. All of those mentioned above have heavily threatened the human health and constrained economic and social development.

3. The priority fields of water pollution prevention and control in China

The Chinese Government has put forward that by the year of 2000, the total amount of discharges from major pollutants in each province, autonomous region and municipality should be controlled within the stipulated indicators. The emission of wastes from the industrial pollution sources of the whole country should comply with

the stipulated standards at national and local levels. The air and water environmental quality in key cities, such as municipalities, the capitals of provinces should meet the stipulated national standards. Such overall goals identified the direction of water environmental protection in the trans-century period in China. Bearing in mind the goals, headed by the pollution treatment of "three rivers and three lakes", focusing on the study of priority fields as follows, we would make great efforts to further promote the water environmental protection work in China.

- 1) . Establishment and improvement of the integrated decision-making systems on environment and development.

The basic task of environmental protection is to better coordinate the relationship between the environment and development, to ensure the economy along the road of sustainable development. Therefore, we should conduct environment impact certification on important national economic policies, long-term development plans and regional development and construction projects, so as to ensure the implementation of the sustainable development strategies.

- 2) . Further strengthening the treatment of industrial pollution sources

In order to resolve the water environmental pollution from industrial enterprises, the following 4 measures would be adopted:

Continuous readjustment of industrial structure, reduction of the number of the enterprises with extensive management and low resources using rate;

Active implementation of cleaner production;

Accelerating the development of the end-of -pipe treatment technologies in line with the situation of China, to ensure the compliance with emission standards of all important pollution sources in China before 2000;

Strict control of the generation of new pollution sources.

- 3) . Accelerating the construction of urban sewage treatment plants

In China, the amount of urban living sewage account for 45% of the total waste water discharge, but the treatment rate still needs to be enhanced. We should study the operation and management mechanisms of the construction of urban sewage treatment plants.

- 4) . Accelerating pollution prevention and control in key river basins and implementing total amount control systems on waste discharge

We will accelerate water pollution treatment in some of the key river basins and lakes, and on the basis of compliance with emission standards, to implement the total amount control system and pollutant discharge license system, so as to ensure the comprehensive improvement of water environmental quality.

- 5) . Improving the supervision and management means and strengthening the capability building of the environmental information systems

The environmental supervision and management means in China are relatively backwards at present, in particular the environmental monitoring methods. We will gradually set up automatic monitoring facilities in the key pollution sources and major monitoring sections in the future, and automatic monitoring stations as well. The capability building of environmental information systems needs to be strengthened further.

6) . Gradually formulating economic policies preferential for the environment.

We will formulate and perfect more preferential environmental economic policies on the basis of research on the current economic policies.

7) Further improving the management systems on water environment

We have accumulated some experiences on the treatment of water pollution in key river basins, but how to manage the water environment of whole country is still an important issue for further study.

8) . Reinforcing the research on environmental sciences, so as to provide scientific theories and methods for the protection and improvement of water environmental quality.

The most emergent task at present is to strengthen the research on the methods of total amount control, and improve as soon as possible every system on environmental impact assessment, levying-fees on pollutants discharge and discharge license system with the total amount control as the core, and to carry out the study on the relationship between the total pollutants discharge volume and the water environmental quality. We should strengthen the study on the damages to the agricultural ecological environment and human health caused by pollution, to enhance the study on the treatment technologies of highly concentrated organic waste water and various water saving methods and technologies, and to accelerate the pace of development of environmental industry, so as to service for water pollution prevention and control in China.